L 14250-66
ACC NR: AT6003852

6

The knitted underwear developed by such methods was worn by Gagarin, Titov, Nikolayev, Popovich, Bykovskiy, and Tereshkova on the first spaceflights. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 004

FW
Card 3/3

PROKHORCHUK, I.S., prof.; SAMKULO, G.M., dots.; BOYTSOV, K.P., dots.; NECHUYATOVA, N.P., dots.; POPOV, N.I., dots.; SITKHINA, D.Ye., MITIN, A.G., dots.; SUCHIL'NIKOV, N.G., red.; GOSPODARSKAYA, T.N., red. izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Economics of the woodworking industry] Ekonomika lesoobrabatyvaiushchei promyshlennosti. Moskva, Goslesbumizdat, 1961. 309 p. (MIRA 15:3)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova (for Prokhorchuk, Boytsov, Nechuyatova, Popov, Sitkhina, Mitin).
2. Vsesoyuznyy zaochnyy lesotekhnicheskiy institut (for Samkulo).
(Woodworking industries)

POPOV, N. I. and LOGINOV, D. F.

"Experience in the a plication of chlorophos against the warble fly Hypoderma bovis in reindeer."

Veterinariya, Vol. 38 No. 5 1961

Popov, N. I. - Main Veterinary Surgeon, Bereza Raion, Tyumen' Oblast')

SOV/32-25-3-28/62

25(6)

AUTHOR: Popov, N. I.

TITLE: On the Method of Testing Compressed Spiral Springs With Regard to Relaxation (K metodike ispytaniya zanevolennykh vintovykh pruzhin na relaksatsiyu)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, pp 332-334 (USSR)

ABSTRACT: At present there is no verified method of the tests mentioned in the title. In this case the measurement of a residual deformation after removal of the load is insufficient because a secondary plastic deformation is formed after the relief and relaxation is delayed. In the case under discussion, the reaction of a spring compressed between two disks was determined (Fig 1) instead of the residual deformation. The deformation degree of the spring could be regulated by means of a little tube. The deformation diagram was drawn during the compression and thus the reaction upon compression determined. The test lasted for 10000 hours, and wire springs of the wire types OVS (their composition corresponds to steel 70) and P-1 were used. The wire springs underwent various thermal treatments. The results of the investigation show (Fig 2) that the process of relaxation

On the Method of Testing Compressed Spiral Springs With Regard to Relaxation

SOV/32-25-3-28/62

of compressed springs has two periods. According to a calculation equation it was found that under equal conditions hardened springs have a shorter relaxation time than cold-wound springs. There are 2 figures and 1 Soviet reference.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut (Moscow Construction Engineering Institute)

Card 2/2

POPOV, N.I.

Natural radioactivity of ocean water. Okeanologiia 4
no.2 223-231 '64. (MIRA 17:5)

1. Institut okeanologii AN SSSR.

COUNTRY : BULGARIA
CATEGORY : General Biology.
Individual Development, Embryonic Development.
ABS. JOUR. : RZhBiol., No. 2, 1959, No. 5087
AUTHOR : Khadzhiolov, A. I.; Danova, N. D.; Popov, N. I.
INST. : Institute of Morphology, Bulgaria Academy of
TITLE : The Problem of Morphogenesis and Histogenesis of the Lungs in the Embryogenesis of Man.

ORIG. PUB. : Izv. In-ta morfol. Bilg. AN, KN, 2, 7-50

ABSTRACT : The organogenesis and histogenesis of the human lungs were investigated. The weight of the lung doubles about the 7th month, later the weight increases gradually. Growing and phyllophore division of the bronchial tree take place dichotomously. The cylindrical respiratory epithelium is replaced by a cubic one beginning wit the 4th month. Between the 7th and 9th month processes occur leading to the formation of pneu momeric vascularization. The formation of

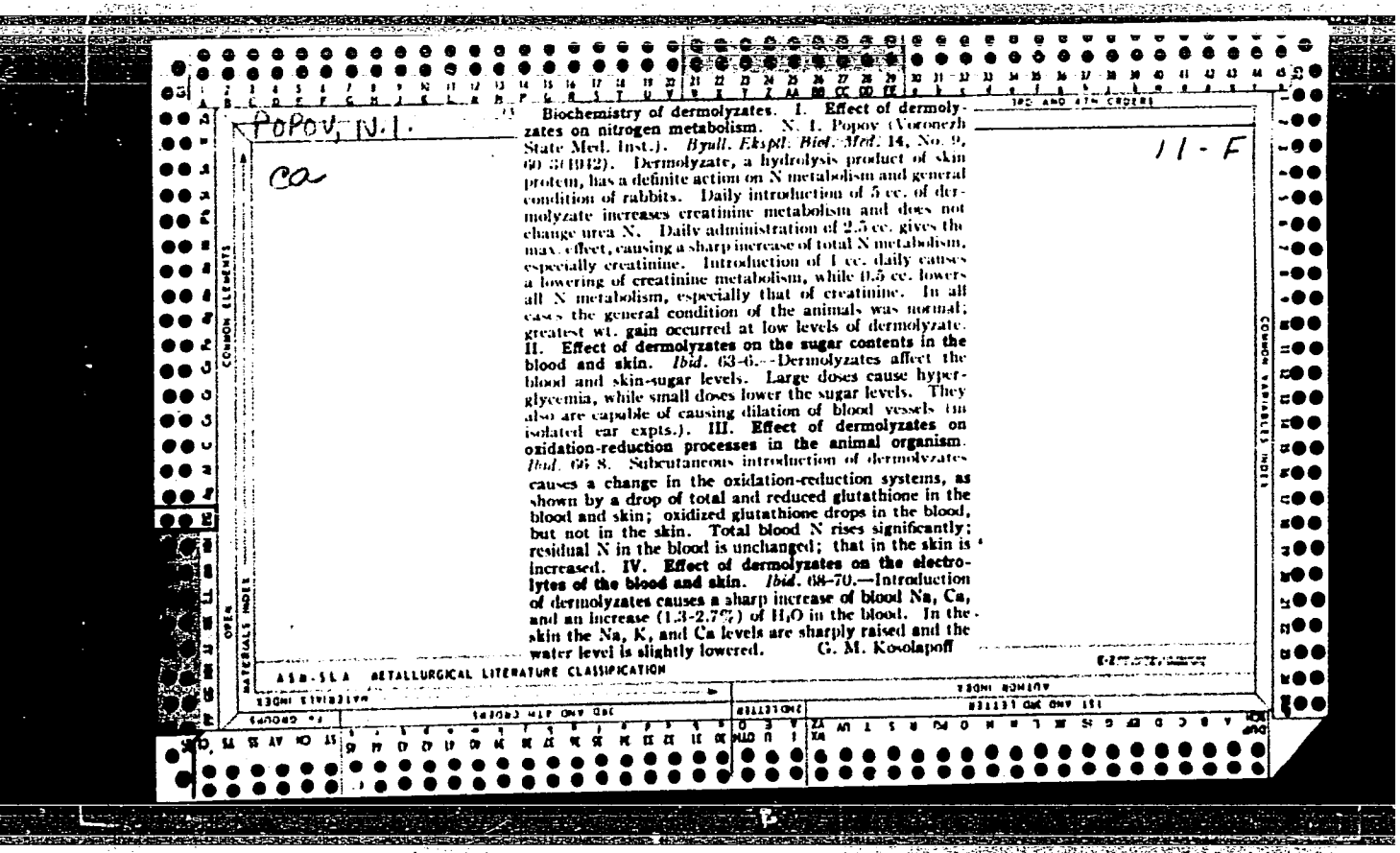
POPOV, N.I.

"Organization of work in consolidated hospitals" by O.A. Aleksandrov, V.A. Deriabina, B.M. Matsko. Reviewed by N.I. Popov. Zdrav. Ros. Feder. 3 no.5:36-37 My '59. (MIRA 12:7)
(PUBLIC HEALTH)
(ALEKSANDROV, O.A.) (DERIABINA, V.A.)
(MATSKO, B.M.)

POPOV, N.I.

Methods for relaxation testing of compressed screw-type springs. Zav. lab. 25 no.3:332-334 '59. (MIRA 12:4)

1. Moskovskiy inzhenerno-stroitel'nyy institut.
(Springs (Mechanism)--Testing)



POPOV, N. I.

Ca

11-F

Biochemistry of dermolyzates. I. **Effect of dermolyzates on nitrogen metabolism.** N. I. Popov (Voronezh State Med. Inst.). *Byull. Eksptl. Biol. Med.* 14, No. 9, 60-3(1942). Dermolyzate, a hydrolysis product of skin protein, has a definite action on N metabolism and general condition of rabbits. Daily introduction of 5 cc. of dermolyzate increases creatinine metabolism and does not change urea N. Daily administration of 2.5 cc. gives the max. effect, causing a sharp increase of total N metabolism, especially creatinine. Introduction of 1 cc. daily causes a lowering of creatinine metabolism, while 0.5 cc. lowers all N metabolism, especially that of creatinine. In all cases the general condition of the animals was normal; greatest wt. gain occurred at low levels of dermolyzate. II. **Effect of dermolyzates on the sugar contents in the blood and skin.** *Ibid.* 63-6.—Dermolyzates affect the blood and skin-sugar levels. Large doses cause hyperglycemia, while small doses lower the sugar levels. They also are capable of causing dilation of blood vessels (in isolated ear expts.). III. **Effect of dermolyzates on oxidation-reduction processes in the animal organism.** *Ibid.* 66-8. Subcutaneous introduction of dermolyzates causes a change in the oxidation-reduction systems, as shown by a drop of total and reduced glutathione in the blood and skin; oxidized glutathione drops in the blood, but not in the skin. Total blood N rises significantly; residual N in the blood is unchanged; that in the skin is increased. IV. **Effect of dermolyzates on the electrolytes of the blood and skin.** *Ibid.* 68-70.—Introduction of dermolyzates causes a sharp increase of blood Na, Ca, and an increase (1.3-2.7%) of H_2O in the blood. In the skin the Na, K, and Ca levels are sharply raised and the water level is slightly lowered. G. M. Kosolapoff

KHADZHIOLOV, Asen Ivanov, akad., 1903-(Sofiia); POPOV, N.I. (Sofiia); DAMOVA, N.D. (Sofiia); PETKOV, P.E. (Sofiia)

Contribution to the biology of the nerve tissue and the nervous system. I. Morphogenesis of the brain hemisphere of the human fetus. Izv.Inst.morf.BAN 3:55-73 '59. (MRAI 9:5)

1. Zavezhdasht, Katedra po khistologiia i embriologiia pri Visshiia meditsinski institut. Direktor Institut po morfologiia pri Bulgarskata akademiia na naukite, Sofiia, (for Khadzhiolov).
(FETUS) (NERVOUS SYSTEM) (MORPHOGENESIS) (BRAIN)

POPOV, N. I.

KHADZHIOLOV, A. I., DAMOVA, N. D., POPOV, N. I.

Hemopoiesis in lungs of the human embryo. Izv. med. inst., Sofia 1:143-150 1951. (CIML 21:3)

1. Morphology Section (Head -- Corresponding Member A. Khadzhiolov) of the Institute of Experimental Medicine of the Academy of Sciences (Director -- Academician D. Orakhovats) and the Department of Histology and Embryology of V. Chervenkov Medical Academy (Head -- A. Khadzhiolov).

POPOV, N.I.

Certain data on undergraduate medical practice in industrial projects. (CLML 20:7)
Klin.med., Moskva 29 no.3:73-74 Mar 51.

1. Of Kasimovsk Inter-Rayon Hospital, Kasimov.

POPOV, N.I.

Results of the treatment of gastric and duodenal ulcer. Sovet. med. No. 2:42-43 Feb 52. (CLML 21:5)

1. Ryazan' Oblast.

ANDREYEV, A.B.; ANTONOV, A.I.; ARAPOV, P.P., BARMASH, A.I., BEDNYAKOVA, A.B.; BENIN, G.S.; BERESNEVICH, V.V.; BERNSHTEYN, S.A.; BITYUTSKOV, V.I.; BLYUMENBERG, V.V.; BONCH-BRUYEVICH, M.D.; BORMOTOV, A.D.; BULGAKOV, N.I.; VEKSLER, B.A.; GAVRILENKO, I.V.; GENDLER, Ye.S., [deceased]; GERLIVANOV, N.A., [deceased]; GIBSHMAN, Ye.Ye.; GOLDOVSKIY, Ye.M.; GORBUNOV, P.P.; GORYAINOV, F.A.; GRINBERG, B.G.; GRYUNER, V.S.; DANOVSKIY, N.F.; DZEVUL'SKIY, V.M., [deceased]; DREMAYLO, P.G.; DYBETS, S.G.; D'YACHENKO, P.F.; DYURMBAUM, N.S., [deceased]; YEGORCHENKO, B.F. [deceased]; YEL'YASHKEVICH, S.A.; ZHEREBOV, L.P.; ZAVEL'SKIY, A.S.; ZAVEL'SKIY, F.S.; IVANOVSKIY, S.R.; ITKIN, I.M.; KAZHDAN, A.Ya.; KAZHINSKIY, B.B.; KAPLINSKIY, S.V.; KASATKIN, F.S.; KATSAUROV, I.N.; KITAYGORODSKIY, I.I.; KOLESNIKOV, I.F.; KOLOSOV, V.A.; KOMAROV, N.S.; KOTOV, B.I.; LINDE, V.V.; LEBEDEV, N.V.; LEVITSKIY, N.I.; LOKSHIN, Ya.Yu; LUTTSAU, V.K.; MANNERBERGER, A.A.; MIKHAYLOV, V.A.; MIKHAYLOV, N.M.; MURAV'YEV, I.M.; NYDEL'MAN, G.E.; PAVLYSHKOV, L.S.; POLUYANOV, V.A.; POLYAKOV, Ye.S.; POPOV, V.V.; POPOV, N.I.; RAKHLIN, I.Ye., RZHEVSKIY, V.V.; ROZENBERG, G.V.; ROZENTRETER, B.A.; ROKOTYAN, Ye.S.; RUKAVISHNIKOV, V.I.; RUTOVSKIY, B.N. [deceased]; RYVKIN, P.M.; SMIRNOV, A.P.; STEPANOV, G.Yu, STEPANOV, Yu.A.; TARASOV, L.Ya.; TOKAREV, L.I.; USPASSKIY, P.P.; FEDOROV, A.V.; FERE, N.E.; FRENKEL', N.Z.; KHEYFETS, S.Ya.; KHLOPIN, M.I.; KHODOT, V.V.; SHAMSHUR, V.I.; SHAPIRO, A.Ye.; SHATSOV, N.I.; SHISHKINA, N.N.; SHOR, E.R.; SHPICHENETSKIY, Ye.S.; SHPRINK, B.E.; SHTERLING, S.Z.; SHUTYY, L.R.; SHUKHGAL'TER, L. Ya.; ERVAYS, A.V.;

(Continued on next card)

ANDREYEV, A.B. (continued) .... Card 2.

YAKOVLEV, A.V.; ANDREYEV, Ye.S., retsenzent, redaktor; BERKEN-GEYM,B.M., retsenzent, redaktor; BERMAN, L.D., retsenzent, redaktor; BOLTINSKIY, V.N., retsenzent, redaktor; BONCH-BRUYEVICH, V.L., retsenzent, redaktor; VELLER, M.A., retsenzent, redaktor; VINOGRADOV, A.V., retsenzent, redaktor; GUDTSOV, N.T., retsenzent, redaktor; DEGTYAREV, I.L., retsenzent, redaktor; DEM'YANYUK, F.S., retsenzent; redaktor; DOBROSMYSLOV, I.N., retsenzent, redaktor; YELANCHIK, G.M. retsenzent, redaktor;ZHEMOCHKIN, D.N., retsenzent, redaktor; SHURAVCHENKO, A.N., retsenzent, redaktor; ZLODEYEV, G.A., retsenzent, redaktor; KAPLUNOV, R.P., retsenzent, redaktor; KUSAKOV, M.M., retsenzent, redaktor; LEVINSON, L.Ye., [deceased] retsenzent, redaktor; MALOV, N.N., retsenzent, redaktor; MARKUS, V.A. retsenzent, redaktor; METELITSYN, I.I., retsenzent, redaktor; MIKHAYLOV, S.M., retsenzent; redaktor; OLIVETSKIY, B.A., retsenzent, redaktor; PAVLOV, B.A., retsenzent, redaktor; PANYUKOV, M.P.,retsenzent, redaktor; PLAKSIN, I.N., retsenzent, redaktor; RAKOV, K.A. retsenzent, redaktor; RZHAVINSKIY, V.V., retsenzent, redaktor; RINBERG, A.M., retsenzent; redaktor; ROGOVIN, N. Ye., retsenzent, redaktor; RUDENKO, K.G., retsenzent, redaktor; RUTOVSKIY, B.N., [deceased] retsenzent, redaktor; RYZHOV, P.A., retsenzent, redaktor; SANDOMIRSKIY, V.B., retsenzent, redaktor; SKRAMTAYEV, B.G., retsenzent, redaktor; SOKOV, V.S., retsenzent, redaktor; SOKOLOV, N.S., retsenzent, redaktor; SPIVAKOVSKIY, A.O., retsenzent, redaktor; STRAMENTOV, A.Ye., retsenzent, redaktor; STRELETSKIY, N.S., retsenzent, redaktor;

(Continued on next card)

ANDREYEV, A.V.,(continued) .... Card 3.

TRET'YAKOV, A.P., retsenzent, redaktor; FAYERMAN, Ye.M., retsenzent, redaktor; KHACHATYROV, T.S., retsenzent, redaktor; CHERNOV, H.V., retsenzent, redaktor; SHERGIN, A.P., retsenzent, redaktor; SHESTOPAL, V.M., retsenzent, redaktor; SHESHKO, Ye.F., retsenzent, redaktor; SHCHAPOV, N.M., retsenzent, redaktor; YAKOBSON, M.O., retsenzent, redaktor; STEPANOV, Yu.A., Professor, redaktor; DEM'YANYUK, F.S., professor, redaktor; ZNAMENSKIY, A.A., inzhener, redaktor;PLAKSIN, I.N., redaktor; RUTOVSKIY, B.N. [deceased] doktor khimicheskikh nauk, professor, redaktor; SHUKHGAL'TER, L. Ya, kandidat tekhnicheskikh nauk, dotsent, redaktor;BRESTINA, B.S., redaktor; ZNAMENSKIY, A.A., redaktor.

(Continued on next card)

ANDREYEV, A.V. (continued) .... Card 4.

[Concise polytechnical dictionary] Kratkii politekhnicheskii slovar'. Redaktsionnyi sovet; IU.A.Stepanov i dr. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1955. 1136 p. (MLRA 8:12)

1. Chlen-korrespondent AN SSSR (for Plaksin)
(Technology--Dictionaries)

POPOV, N.I.; KOLCHEV, V.A.; UKHANOV, S.P.; BABANSKIY, Yu.K.,
(Rostov-na-Donu).

Survey of school activities. Fiz. v shkole 16 no.6:91-92
N-D '56. (MLRA 9:12)

1. 2-ya shkola imeni A.P. Chekhova, g. Taganrog (for Popov)
2. 15-ya srednyaya shkola Yugo-Vostochnoy zheleznoy dorogi
(for Kolchev) 3. 7-ya srednyaya shkola, Vologda (for Ukhanov).
(Physics--Study and teaching)

FILIN, A.P., prof., POPOV, N.I., inzh.

Designing arches according to limiting states. Sbor.LIIZHT no.164:154-162 '59. (MIRA 13:8)
(Arches)

POPOV, N.I. (Ryazan')

Organization of medical service for workers of industrial enterprises by city hospitals. Zdrav.Ros.Feder. 3 no.11 N '59. (MIRA 13:3)

(RYAZAN--MEDICAL CARE)

POPOV, N.I., zasluzhennyy vrach

Rendering patronage aid to the rural public health system. Zdrav. Ros. Fedor. 4 no.12:19-20 D '60. (MIRA 13:12)

1. Glavnyy vrach Ryazanskoy gorodskoy klinicheskoy bol'nitsy No.4.
(PUBLIC HEALTH, RURAL)

POPOV, N.I., zasluzhennyy uchitel' shkoly RSFSR (Taganrog)

From experience obtained in the teaching of astronomy. Fiz. v shkole 20 no.6:87-89 N-D '60. (MIRA 14:2)
(Astronomy—Study and teaching)

BORODACHEV, I.P., kandidat tekhnicheskikh nauk; GARBUZOV, Z.Ye., inzhener; redaktor; GOROKHOV, B.N. laureat Stalinskoy premii, inzhener; KOSTIN, M.I., inzhener; POPOV, N.I., inzhener; PRUSSAK, B.N., inzhener; SHIMANOVICH, S.V., inzhener; PETERS, Ye.R., kandidat tekhnicheskikh nauk, retsenzent; KRIMERMAN, M.N., inzhener, redaktor; MODEL', B.I., tekhnicheskiy redaktor.

[Machines for constructing irrigation systems] Mashiny dlia sooruzheniia orositel'nykh sistem. Pod red. Z.E.Garbuzova. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1951. 236 p. (MLRA 9:1)
(Irrigation)

POPOV, N. I.

Agricultural Machinery

More effective work from tractors and machinery of the Konoplyanka Shelterbelt Station, Les i step' 4, no. 9, 1952

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

USSR/Engineering - Irrigation, Equipment Aug 52

"New Sprinkling Machines," Engr N. I. Popov

Gidrotekh i Meliorats, No 8, pp 23-30

Briefly reviews existing machines used in field for watering crops by sprinkling. Describes in detail two new self-propelling machines and one installation attachable to tractor. Machines are equipped with devices for spreading mineral fertilizers and and for spraying plants with insecticides.

247T41

1. N. I. POPOV.
2. USSR (600)
4. Agricultural Machinery
7. Hanging tools and attachments for farm tractors. Dost. sel'khoz. no. 12. 1952

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

POPOV, Nikolay Ivanovich

[Employing machinery on new and waste lands] Ispol'zovanie mashin na tselinnykh i zalezhnykh zemliakh. Moskva, Gos. izd-vo selkhoz lit-ry, 1956. 33 p. (MLRA 9:7)
(Agricultural machinery)

ANTYSHEV, P.I.; VASIL'YEV, V.M.; ZHARKOV, V.P.; LOZOVOY, V.I.; POPOV, N.I.; PUZANOV, V.S.; PUZRYAKOV, V.A.; SMIRNOV, N.I.; SOLOUKHIKOV, V.N.; YUR'YEV, G.I.; KRYUKOV, V.L., red.; PEVZNER, V.I., tekhn.red.

[Agricultural machinery in the seven-year plan] Sel'skokhoziaistvennaia tekhnika v semiletke. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 94 p. (MIRA 13:10)

(Agricultural machinery)

TULUPNIKOV, A.I.. Prinimali uchastiye: BAKULIN, I.I.; VIKHLYAYEV, A.P.; DUBOROV, N.T.; KABANOV, P.N.; PIS'MENNYY, I.G.; POPOV, N.I.; SOLOV'YEV, A.V., prof., doktor ekon.nauk, retsenzent; MAKAROV, N.P., prof., doktor ekon.nauk, retsenzent; GORYACHKIN, M.I., kand.nauk, retsenzent; OKHAPKIN, K.A., kand.nauk, retsenzent; RUSAKOV, G.K., kand.nauk, retsenzent; MURATOV, D.G., kand.nauk, retsenzent; CHEREMUSHKIN, S.D., kand.nauk, retsenzent; TOLOV, V.V., retsenzent.

[Economic basis for agricultural administration] Voprosy ekonomicheskogo obosnovaniia sistem vedeniia sel'skogo khoziaistva. Moskva, 1960. 275 p. (MIRA 13:6)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva (for Bakulin, Vikhlyayev, Duborov, Kabanov, Pis'mennyy, Popov.)
(Farm management)

POPOV, Nikolay Ivanovich; TIKHONOVA, Ye.M., red.; PROKOF'YEVA, L.N., tekhn. red.

[Mathematical method for analyzing labor productivity in agriculture according to factors involved] O matematicheskom metode analiza proizvoditel'nosti truda v sel'skom khoziaistve (po faktoram). Moskva, Gos. izd-vo sel'khoz. lit-ry, zhurnalov i plakatov, 1961. 102 p. (MIRA 14:8)
(Agriculture—Labor productivity) (Economics, Mathematical)

TYUPKO, Valentin Afanas'yevich, Geory Sotsialisticheskogo Truda; Prinimal uchastiye POPOV, N.I., inzh.; GREBTSOV, P.P., red.; GUREVICH, M.M., tekhn. red.

[Over-all mechanization in cotton growing]Kompleksnaia mekhanizatsiia v khlopkovodstve. Moskva, Sel'khozizdat, 1962. 46 p. (MIRA 15:12)

1. Mekhanizator Gosudarstvennoy sredneaziatskoy zonal'noy mashinoispytatel'noy stantsii (for Tyupko).
(Cotton growing) (Farm mechanization)

LEMESHEV, M.Ya.; LAGUTIN, N.S.; GREKULOV, L.F.; KRASNOV, V.D.; PRONIN, A.A.; YAKOVLEVA, T.V.; ANAN'YEVA, L.F.; KOLOSOVA, Ye.Ya.; MURASHKO, Yu.V.; GABIDULLIN, V.M.; POPOV, N.I.; POPOV, N.M.; STUDENKOVA, N.M.; SMYSLOVA, A.S.; PANIN, N.S., red.; PANIN, N.S., red.; GERASIMOVA, Ye.S., tekhn.red.

[Methods for creating an abundance of agricultural products in the U.S.S.R.] Puti sozdaniia izobiliia sel'skokhoziaistvennykh produktov v SSSR. Moskva, Ekonomizdat, 1963. 317 p. (MIRA 16:6)

1. Sektor ekonomicheskikh problem sel'skogo khozyaystva Nauchno-issledovatel'skogo ekonomicheskogo instituta Gosplana SSSR (for all except Panin, N.S., Panin, N.S., Gerasimova).
(Farm produce)

ACC NR: AP6025661 (A) SOURCE CODE: UR/0413/66/000/013/0126/0127

INVENTOR: Venediktov, V. A.; Vasil'yev, Yu. A.; Popov, N. I.; Markelov, Ye. V.; Veynblat, M. Kh.; D'yakov, A. P.; Shishakov, K. I.; Yusim, L. Ya.; Skvortsov, A. M.; Kireyev, Yu. A.; Guzanov, G. N.; Gerasimovich, S. G.

ORG: None

TITLE: A fluid device for damping torsional vibrations. Class 47, No. 183539 [announced by the Turbine Motor Plant (Turbomotornyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 126-127

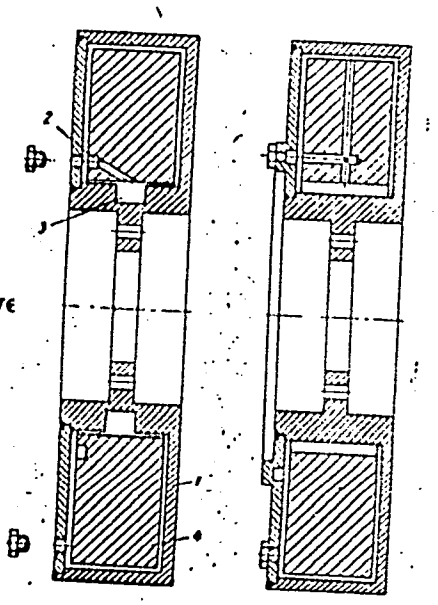
TOPIC TAGS: vibration damping, hydraulic device, torsional vibration

ABSTRACT: This Author's Certificate introduces a fluid device for damping torsional vibrations. The unit consists of a housing with a hole for fluid delivery and a movable annular disc with a compensating cavity set inside the housing. The installation is designed for more reliable and simpler filling of the unit with fluid by providing the faces of the disc or the internal surface of the housing opposite the hole for fluid delivery with at least one annular groove connected to the compensating cavity by channels in the disc body.

Card 1/2

UDC: 621-752.2

ACC NR: AP6025661



1—housing
2—annular groove
3—compensating cavity
4—disc

SUB CODE: 13,20/SUBM DATE: 28Apr65

Card 2/2

POPOV, N.I.; OBUKOV, V.M.; PATIN, S.A.; USHAKOVA, M.P.

Strontium-90 in the surface waters of the Indian Ocean in 1960-1961. Okeanologiia 4 no.3:418-[illegible] '64. (MIRA 18:1)

1. Institut okeanologii AN SSSR.

SOKOL'SKIY, D.V.; POPOV, N.I.; POPOVA, N.K.

Use of Kulan bentonite clays in the hydrogenation of cotton-seed oil under operational plant conditions. Trudy Inst. khim. nauk AN Kazakh. SSR 13:210-218 '65. (MIRA 18:9)

POPOV, N.I., kand. tekhn. nauk

Bending and twisting of a rod. Sbor. nauch. trud. RIIZHT no.40: 121-126 '63. (MIRA 18:3)

POPOV, N.I.; PATIN, S.A.; POLEVOY, R.I.; KONNOV, V.A.

Strontium 90 in the waters of the Pacific Ocean. Report No. 2: Surface waters of the central area, 1961. Okeanologiia 4 no.6: 1026-1029 '64. (MIRA 18:2)

1. Institut okeanologii AN SSSR.

IGNATENKO, M.A.; POPOV, N.I.

Decreased diameter boring bits for drilling holes with the use of exhaust dust removal. Gor.zhur. no.1:71 Ja '65.
(MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut - 1, g. Magadan.

KHADZHIOLOV, Asen I.; DAMOVA, N. D.; POPOV, N. I.; PETKOV, P. E.

Biology of the nervous tissue and system. Pt. 2. Izv inst morf BAN 7 37-59 '63.

1. Chlen na Redaktsionnata kolegiia i otgovoren redaktor, "Izvestiia na Instituta po morfologiia" (for Khadzhiolov).

*

Popov, N. I.

Oxidation of organic compounds by molecular oxygen under the action of ionizing radiation. I. Formation of peroxide compounds in liquid hydrocarbons. N. A. Bakh. *Symposium on Radiation Chem., Moscow* 1955, 119–27 (Engl. translation). II. Formation of stable products of oxidation in hydrocarbons of various structures. N. A. Bakh and N. I. Popov. *Ibid.* 129–34. III. Oxidative radiolysis of ethyl alcohol. N. A. Bakh and Yu. I. Sorokin. *Ibid.* 135–44. IV. Oxidative radiolysis of acetic acid. N. A. Bakh and V. V. Saraeva. *Ibid.* 145–51.—See *C.A.* 50, 4649*h*&*i*. B. M. P.

AUTHOR: Popov, N.I.

TITLE: Investigations on Radiation Chemistry (Issledovaniya po radiatsionnoy khimii)

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, Nr 7, pp. 74-75 (USSR)

ABSTRACT: From March 25 to 30, 1957 the first All Union Congress on Radiation Chemistry took place in Moscow, which was convened by the Department for Chemical Sciences AN USSR and the MKhP (Ministry for Chemical Industry) of the USSR. Representatives of many scientific institutes and enterprises of the USSR, as well as scientists from China, Bulgaria, Czechoslovakia, Poland, Jugoslavia and Rumania participated in this congress. The following problems were discussed on the congress: The action of nuclear radiations on water as well as on aqueous solutions of organic and anorganic substances, radiation-electrochemical and corrosion processes, the actions of radiation upon individual organic substances and on polymers, constructions of radiation-sources for radiation-chemical purposes. For the investigations of processes taking place under the influence of ionizing rays the methods of mass-spectroscopy were more and more employed in recent times. By them data may be obtained on the primary products of the

Popov, N.I.

AUTHORS: Popov, N. I., Medvedovskiy, V. I., Bakh, N. A. 89-2-7/35

TITLE: The Effect of Irradiation on the Valence State of Nitrates-of-Plutonium-Solutions (Vliyaniye izlucheniya na valentnoye sostoyaniye plutoniya v azotnokislykh rastvorakh).

PERIODICAL: Atomnaya Energiya, 1958 Nr 2, pp. 154-160 (USSR).

ABSTRACT: The investigations were conducted with 0,3 to 2,0 molar nitrates-of-plutonium solution as well as with 0,3 molar nitric acid, which contained different concentrations of $UO_2(NO_3)_2$ and $K_2Cr_2O_7$.

An X-ray tube (50 kV, 200 mA) was employed as radiation source. The temperature of the liquids was controlled by a thermocouple. The dosimetric quantity, which was used to irradiate the liquids, was determined with the help of a ferrous sulfate-dosimetric method. The doses used were between 5.10^{16} to 9.10^{16} eV/cm^3.sec.
The valence states of Pu were determined from the common pairs of $PuO_2^+ + PuO_2^{++}$ and $Pu^{+3} + Pu^{+4}$.

An irradiation of nitrates-of-plutonium-solutions, which contain no $UO_2(NO_3)_2$, causes only an oxidation of plutonium. The intensity of the oxidation decreases with an increasing concentration of the NO_3-

Card 1/2

The Effect of Irradiation on the Valence State of Nitrates-of-Plu- 89-2-7/35
tonium-Solutions.

ions and of the acidity. The assumption is pronounced, that the oxidation is caused by the OH - radicals. In the presence of $UO_2(NO_3)_2$ a reduction of plutonium occurs on certain conditions, which is caused apparently not by the atomic hydrogen, but by the UO_2-ions. An addition of potassium bichromate has an accelerating effect on the radiation oxidation of plutonium. On certain experimental conditions, however, an addition of $K_2Cr_2O_7$ does not prevent the reduction of plutonium.
There are 9 figures, and 15 references, 4 of which are Slavic.

SUBMITTED: April 23, 1957.

AVAILABLE: Library of Congress.

Card 2/2 **1. Plutonium nitrates-Effect of irradiation 2. Radiation-Chemical effects**

21(7) 5(2)

AUTHOR: Popov, N. I.

SOV/89-6-1-12/33

TITLE: The Influence of Radiation on the Valence State of Plutonium in Solutions of Chloric Acid (Vliyaniye izlucheniya na valentnoye sostoyaniye plutoniya v khlornokislykh rastvorakh)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 1, pp 71 - 73 (USSR)

ABSTRACT: In an earlier paper (Ref 1) it was said that X-ray radiation influences the valence of plutonium in a nitric acid solution. In order to eliminate this influence, it is necessary to use an anion that is insensitive to irradiation. The ion ClO_4^- was chosen for this purpose.
Plutonium is dissolved in 0.3 molar $HClO_4$ and irradiated. The general concentration of plutonium amounted to $\sim 10^{-4}$ mol/l From the graphical representation of the influence exercised by radiation on the valence of plutonium it may be seen that, under the influence of radiation it can be both oxidated and reduced. The ratio between the states of oxidation and reduction tends towards a steady value.
An increase of the ion concentration of ClO_4^- in a 0.3 to 2.3

Card 1/3

molar solution does not influence the behavior of plutonium with respect to irradiation.
The results obtained permit the conclusion to be drawn that the variation of plutonium valence in an aqueous solution under the influence of irradiation is due solely to the radicals H and OH.
In plutonium solutions with $UO_2(ClO_4)_2$ both a reduction and oxidation of the plutonium occurs during irradiation. Also in this case a steady ratio between the forms of oxidation and reduction is found. This ratio depends on the concentration of $UO_2(ClO_4)_2$. It may, however, also vary in one and the same concentration of $UO_2(ClO_4)_2$, according to from what side chemical action occurs.
If the content of the oxidation form of plutonium in the initial solution is higher than in the steady state, irradiation causes reduction of the plutonium. In contrast to nitric acid solutions which contain $UO_2(NO_3)_2$, the reduction process in any $UO_2(ClO_4)_2$-concentration begins already at the first

instant of irradiation. In $UO_2(ClO_4)_2$-concentrations which are higher than 0.3 molar, reduction is so rapid that it is impossible to determine the yield.
The results obtained show that the reduction of plutonium and the influence exercised by irradiation in the presence of UO_2^{++}-ions is due not to atomic hydrogen but to the presence of ions of pentavalent uranium (UO_2^+). In the case of sufficiently high uranyl salt concentrations de-proportionating of these ions already occurs according to the scheme

$$2\ U(V) \rightleftarrows U(IV) + U(VI)$$

There are 5 figures, 1 table, and 2 references, 1 of which is Soviet.

SUBMITTED: February 6, 1958

Card 3/3

YUGANOV, Ye.M.; GORSHKOV, A.I.; KAS'YAN, I.I.; BRYANOV, I.I.; KOLOSOV, I.A.; KOPANEV, V.I.; LEBEDEV, V.I.; POPOV, N.I.; SOLODOVNIK, F.A.

Vestibular reactions of astronauts during the "Voskhod" spaceship flight. Izv. AN SSSR. Ser. biol. no.6:877-883 N-D '65. (MIRA 18:11)

ACC NR: AT6028958 (N) SOURCE CODE: UR/2566/66/082/000/0035/0041

AUTHOR: Popov, N. I. (Candidate of chemical sciences)

ORG: none

TITLE: Concentrations of long-lived nuclear-explosion products on the surface of the World Ocean during the 1959—1961 moratorium

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 82, 1966. Issledovaniya radioaktivnoy zaryaznennosti vod mirovogo okeana (Investigations of radioactive contamination of waters of the oceans), 35-41

TOPIC TAGS: nuclear radiation, ocean radioactivity, ocean property, radioactive fallout, cesium 137, strontium 90, ruthenium 106, promethium 147, cerium 144, carbon 14, RADIOISOTOPE, CESIUM ISOTOPE, RUTHENIUM, PROMETHIUM, CERIUM, CARBON

ABSTRACT: Published data on concentrations of long-lived fission products in the surface waters of the oceans are considered. Means values for Cs^{137}, Sr^{90}, Pm^{147}, Ru^{106}, Ce^{144}, C^{14}, and H^3 concentrations in various regions of the World Ocean in 1960—1961 were estimated. Orig. art. has: 1 figure and 2 tables. [LB]

SUB CODE: 18, 08/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 015

Card 1/1

ACC NR: AT6028959 (N) SOURCE CODE: UR/2566/66/082/000/0042/0055

AUTHOR: Popov, N. I. (Candidate of chemical sciences); Patin, S. A.

ORG: none

TITLE: World-wide strontium 90 distribution on ocean-water surfaces

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 82, 1966. Issledovaniya radioaktivnoy zaryaznennosti vod mirovogo okeana (Investigations of radioactive contamination of waters of the oceans), 42-55

TOPIC TAGS: contamination, oceanology, ocean water, stronium 90, STRONTIUM, RADIOISOTOPE, OCEAN PROPERTY/Atlantic Ocean, Pacific Ocean, Indian Ocean

ABSTRACT: The present article deals withthe geographic distribution of Sr^{90} on the surface of the Pacific, Indian, and Atlantic Ocean and on the surface of some seas, determined from known data on the concentration of Sr^{90} in the surface waters. The concentration of Sr^{90} in the surface layer of the oceans and seas apparently undergoes noticeable fluctuations; however, every region may be characterized by certain mean values of Sr^{90} concentration. Based on their degree of contamination, the oceans fall in the following order: Atlantic, Indian, and Pacific. The waters of the Northern Hemisphere are characterized by a higher Sr^{90} concentration than the waters of the Southern Hemisphere. The seas have higher contamination in comparison with the waters of the open ocean at the same latitudes. An accumulation of Sr^{90} in the surface layer of oceans is significantly smaller than the rate of Sr^{90} deposition

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ACC NR: AT6028959

from the atmosphere. The Sr^{90} concentration in the surface layer of oceans remained practically constant during the last ten years, The one exception is the Pacific ocean, where exceptionally high concentration of Sr^{90} were detected in the form of a local contaminated area after nuclear tests on the Pacific Islands. Orig. art. has: 7 figures and 1 table.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 021/ OTH REF: 014

Card 2/2

ACC NR: AT6028956 (N) SOURCE CODE: UR/2566/66/082/000/0024/0031

AUTHOR: Popov, N. I. (Candidate of chemical sciences); Orlov, V. M.; Patin, S. A.

ORG: none

TITLE: Strontium-90 in the deep waters of the Indian Ocean

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 82, 1966. Issledovaniya radioaktivnoy zaryaznennosti vod mirovogo okeana (Investigations of radioactive contamination of waters of the oceans), 24-31

TOPIC TAGS: nuclear radiation, strontium 90, ocean radioactivity, radioactive fallout, radioactivity, STRONTIUM, RADIOISOTOPE, OCEAN PROPERTY / INDIAN OCEAN

ABSTRACT: The article deals with the results of determinations of Sr^{90} concentration in the deep waters of the Indian Ocean in 1960—1961. The surveyed area covers a rough triangle from 19° 15'N, 65° 56' E to 39° 24' S, 71° 19' E to 8° 10' S, 104° 39' E. A table is given which shows the measurement results for 11 stations and 33 samples. Sr^{90} was found everywhere within the whole stratum of water in the ocean from the surface to the bottom, and graphs are presented showing Sr^{90} concentration (along the meridian) between 40°S and 10°N (8 stations) and the vertical distribution. The Sr^{90} budget under a unit surface area of the Indian Ocean was estimated to be

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ACC NR: AT6028956

100 kgcm/km^2. The probable causes of the comparatively high contamination of the Indian Ocean are discussed. Orig. art. has: 4 figures and 1 table. [LB]

SUB CODE: 08,07/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 001

Card 2/2

OLENICHEV, S.I.; KULAGINA, O.I.; POPOV, N.I.

Foreign bracket-milling machines; survey. Stan. i instr. 36 no.11:34-36 N '65. (MIRA 18:11)

L 2668-66 EWT(l)/EWT(m)/FCC/EWA(h) GS/GW
ACCESSION NR: AT5023952 UR/0000/65/000/000/0373/0379

AUTHOR: Popov, N. I.

TITLE: Nature of the accumulation of atmospheric aerosols on ocean surfaces

SOURCE: Nauchnaya konferentsiya po yadernoy meteorologii. Obninsk, 1964. Radioaktivnyye izotopy v atmosfere i ikh ispol'zovaniye v meteorologii (Radioactive isotopes in the atmosphere and their use in meteorology); doklady konferentsii. Moscow, Atomizdat, 1965, 373-379

TOPIC TAGS: nuclear meteorology, atmospheric pollution, oceanic pollution, radioactive fallout, radioactive aerosol, atmospheric boundary layer

ABSTRACT: A review and evaluation are given for various investigations carried out by both Soviet and non-Soviet specialists to measure, analyze, and explain the difference in the accumulation on land masses and in the oceans of radioactive products produced by nuclear explosions. The roles of such individual processes as density of atmospheric precipitation, proportions of land-mass radioactive accumulation and ocean accumulation to the amount and type of precipitation, atmospheric

Card 1/2

L 2668-66
ACCESSION NR: AT5023952

dispersion over water bodies during storms, passage of radioactive aerosols into solution, wind direction and intensity, and the relief of the underlying surface, as reported by these specialists, are appraised. The author concludes that all of these processes must be considered as contributing factors in each instance. Orig. art. has: 4 formulas. [ER]

ASSOCIATION: none

SUBMITTED: 28Apr65 ENCL: 00 SUB CODE: ES, NP

NO REF SOV: 009 OTHER: 004 ATD PRESS: 4101

Card 2/2

POPOV, N.I.; AZHAZHA, E.G.; KOSOUROV, G.I.; YUZEFOVICH, A.A.

Strontium-90 in surface waters of the Atlantic Ocean. Okeanologiia 2 no.5:845-848 '62. (MIRA 15:11)

1. Morskoy gidrofizicheskiy institut AN SSSR.
(Atlantic Ocean--Strontium)

POPOV, N.I.; ORLOV, V.[illegible]; PCHELIN, V.A.

Strontium-90 in the waters of the Pacific Ocean. Okeanologiia 3 no.4:666-668 '63. (MIRA 16:11)

1. Institut okeanologii AN SSSR.

Popov, N. I.

AID P - 3181

Subject : USSR/Meteorology

Card 1/1 Pub. 71-a - 8/23

Author : Popov, N. I.

Title : Tornadoes on the Black Sea littoral

Periodical : Met. i. gidr., 5, 35-37, S/O 1955

Abstract : Four tornadoes occurred on the Black Sea littoral between July 22 and September 29, 1954. Their origin, causes and nature are discussed in the article. Five diagrams and photos.

Institution : None

Submitted : No date

Translation M-1172, 23 Jul 57

S/050/60/000/009/008/008
B012/B063

AUTHOR: Popov, N. I.

TITLE: All-Union Conference on the Ionosphere

PERIODICAL: Meteorologiya i gidrologiya, 1960, No. 9, p. 63

TEXT: The Vsesoyuznoye soveshchaniye rabochey gruppy po ionosfere Mezhvedomstvennogo komiteta po provedeniyu MGG pri Prezidiume Akademii nauk SSSR (All-Union Conference of the Section for the Ionosphere of the Interdepartmental Committee for the Organization of the International Geophysical Year at the Presidium of the Academy of Sciences USSR) took place at the fiziko-matematicheskiy fakul'tet Rostovskogo-na-Donu gosudarstvennogo universiteta (Department of Physics and Mathematics of Rostov-na-Donu State University) in April, 1960. The Conference was attended by co-workers of the Nauchno-issledovatel'skogo instituta zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln (Scientific Research Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation of Radiowaves), Moskovskiy gosudarstvennyy universitet (Moscow State University), Tomskiy gosudarstvennyy universitet (Tomsk

POPOV, M. I.

POPOV, M. I. --"Investigation of the Operation of an Automobile Differential Under Operating Conditions." Sub 4 Apr 53, Moscow Automotive Mechanical Inst. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vecherniaya Moskva, January-December 1952

POPOV, N. I. and FRIDMAN, Ya. B.

"Increasing the Strength of Machine Parts by Cold Hardening Process," page 3 of the book "Problems on Strength and Deformation of Metals and Alloys" released by the Moscow Engineer-Physics Inst., Mashgiz, 1954

TABCON D342613, 24 Oct 55

POPOV, N.I., inzhener; FRIDMAN, Ya.B., doktor tekhnicheskikh nauk, professor.

Increasing the strength of machine parts by the method of oriented peening. Sbor.nauch.rab.MIFI no.8:3-34 '54. (MLRA 9:3)
(Strains and stresses) (Shot peening)

POPOV, N.I., assistent.

Bending a cantilever-fixed bar subjected to forces applied to its free end. Trudy RIIZHT no.18:181-185 '54. (MLRA 9:3)
(Elasticity)

PIKOVSKIY, A.A., professor; POPOV, N.I., assistant.

Method of deformations. Trudy RIIZHT no.19:150-172 '55.(MLRA 9:7)
(Deformations (Mechanics))

SOV/113-58-12-9/17

AUTHOR: Popov, N.I., Candidate of Technical Sciences

TITLE: On the Performance of the Differential Gear of an Automobile (O rabote differentsiala avtomobilya)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 12, pp 26-29 (USSR)

ABSTRACT: The consumption of spare parts shows that the wear of the differential gear under difficult conditions is greater than that of the principal gear. The wear is greatest in self-blocking differential gears of automobiles with a high road-ability. The operating conditions of differential gears are not completely known. For determining the friction and the economy of the mechanism, an efficiency factor is needed, in which the kinetic and dynamic peculiarities of the mechanism are considered. The friction coefficient for well lubricated differential gears has been determined as 0.035 by the Moscow Automechanical Institute. Electric transducers for the recording of the relative shifts of parts in mechanisms and automobiles are available [Ref 1]. The operating conditions of a differential gear must be studied by a synchronous recording of the relative turning of the driving wheels, and the torque acting on the gear. The experimental apparatus

Card 1/2

On the Performance of the Differential Gear of an Automobile

was mounted on a GAZ-673 automobile with the usual 7,00 - 16 tires. The experiments were made on a bad road during a glaze frost. The skidding of the automobile by 90° on the road was also investigated. The average speed during the experiments was 11 km/h. The relative torque at a speed of 6 km/h reached values of 12 - 13° of a wheel revolution. The influence of road conditions was studied on cobblestone pavement with a thin ice cover. The average frequency of the relative rotation of the driving wheels reached 4 - 17 oscillations per sec depending on the speed. It has been shown that the relative rotation of the driving wheels influences the stress in the gear parts.
There are 3 graphs, 1 diagram and 2 Soviet references.

ASSOCIATION: Moskovskiy avtomekhanicheskiy institut (Moscow Automechanical Institute)

L 29271-66 EWT(1)/EWT(m) GW

ACC NR: AP6019350 SOURCE CODE: UR/0362/66/002/002/0183/0190

AUTHOR: Ozmidov, R. V.; Popov, N. I.

27
B

ORG: Institute of Oceanology, AN SSSR (Institut okeanologii AN SSSR)

TITLE: Study of vertical water exchange in the ocean by the data on strontium-90 distribution

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 2, 1966, 183-190

TOPIC TAGS: strontium, fluid diffusion, oceanography, isotope

ABSTRACT: The equation of vertical diffusion of an isotope in the waters of the ocean is solved for a case when the values characterizing the process are averaged in time and for a considerable area of the ocean. As a boundary condition for the equation the authors use the constant flux of the isotope through the surface of the ocean. On the basis of the results of observations of the vertical distribution of strontium-90 given in the literature it was possible to determine the coefficient of vertical exchange of waters in the central zone of the northern part of the Atlantic Ocean. The patterns of change of the concentration of the isotope in the ocean with time were determined. The theoretical dependence is confirmed well by the results of observations in the surface layer of the ocean. Orig. art. has: 3 figures and 8 formulas. [JPRS]

SUB CODE: 08, 20, 18 / SUBM DATE: 17Jul65 / ORIG REF: 009 / OTH REF: 007

Card 1/1 CC UDC: 551.465.15

L 05123-67 EWT(m) GW
ACC NR: AP6019516 (N) SOURCE CODE: UR/0362/66/002/002/0183/0190

AUTHOR: Ozmidov, R. V.; Popov, N. I.

23
B

ORG: Institute of Oceanology, Academy of Sciences SSSR (Akademiya nauk SSSR Institut okeanologii)

TITLE: On the study of vertical water exchange in the ocean using strontium 90 distribution data

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 2, 1966, 183-190

TOPIC TAGS: ocean current, radio strontium, radioactive tracer, distribution function

ABSTRACT: The equation for the vertical strontium-90 isotope diffusion in the waters of the ocean is solved for the case when the quantities characterizing the process are averaged according to time and over a considerable area of the ocean. The constant flux of the isotope through the ocean surface is taken as the boundary condition for the equation. A numerical value is obtained for the coefficient of the vertical water exchange in the central part of the northern half of the Atlantic Ocean on the basis of observational results available in the literature pertaining to the vertical distribution of strontium-90. The pattern for the time

Card 1/2

UDC: 551.465.15

ACC NR: AP6019516

variations of isotope concentration in the ocean is established. The theoretical data agree well with the results of observations in the surface layer of the ocean. Orig. art. has: 8 formulas and 3 figures.

SUB CODE: 08/ 18/ SUBM DATE: 17Jul65/ ORIG REF: 009/ OTH REF: 007

Card 2/2

L 05031-67 EWT(1)/EWT(m) GD/GW

ACC NR: AT6031239 SOURCE CODE: UR/0000/65/000/000/0001/0020

AUTHOR: Popov, N. I.; Patin, S. A.

ORG: none

TITLE: Basic characteristics of the global distribution of strontium-90 on the surface of the world ocean (1960-1961)

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Doklady, 1965. Osnovnyye cherty global'nogo raspredeleniya strontsiya-90 na poverkhnosti Mirovogo okeana, 1960-1961 gg., 1-20

TOPIC TAGS: strontium, fallout, strontium 90, ocean strontium concentration, world ocean strontium concentration

ABSTRACT: The patchiness of the global distribution of strontium-90 on the surface of oceans and seas cannot be explained by uneven fallout from the atmosphere. Studies showed that it may be due to the peculiarities in the exchange processes in the surface layer of the waters. The present state of oceanic contamination is characterized by a higher concentration of strontium-90 in the northern hemisphere than in the southern. In comparision with surface conditions

Card 1/2

L 05031-67

ACC NR: AT6031239

prevailing in the Pacific and the Atlantic oceans in 1961, there has been no redistribution in the concentration of strontium-90 through the exchange of waters across the equator. In comparison with other oceanic waters on the same latitude, the contamination of the Pacific by strontium-90 is much greater. The mean concentration of strontium-90 on the surface of the Indian Ocean is between that of the Pacific and Atlantic, and exceeds the theoretical amount computed on the basis of the global distributions of the density of atmospheric fallout of strontium-90. Closed and shallow seas show increased strontium-90 contamination in the surface layer in comparison with open oceanic waters on the same latitude. The average level of the concentration of strontium-90 in the surface layers varies differently with time in the different seas. The concentration of strontium-90 in the surface layers of the Atlantic Ocean remained practically unchanged between 1954-1961. This is probably due to the fact that the amount of strontium-90 precipitated from the atmosphere is equalized by the diffusion of this isotope into the ocean depths. In the Pacific the concentrations of strontium-90 during the period 1960-1961 was considerably lower than in the preceding years. Nevertheless, it was still higher than in the Atlantic and Indian oceans. It appears that this is the result of surface "spreading" of contaminated waters and by radioactive fallout in adjacent areas. Orig. art. has: 7 figures. [Authors' abstract]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 021/ OTH REF: 014/

Card 2/2 pla

PATIN, S.A.; POPOV, N.I.

Purity of yttrium isolated from the carbonate sediments of seawater. Trudy Inst. okean. 79:31-33 '65. (MIRA 18:8)

L 42076-66 EWT(1)/EWT(m)

ACC NR: AT6028953 (N) SOURCE CODE: UR/2566/66/082/000/0005/0015

AUTHOR: Popov, N. I., Patin, S. A., Polevoy, R. M., Konnov, V. A.

ORG: none

TITLE: Strontium-90 in the Pacific Ocean

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 82, 1966. Issledovaniya radioaktivnoy zaryaznennosti vod mirovogo okeana (Investigations of radioactive contamination of waters of the oceans), 5-15

TOPIC TAGS: strontium, radioactive contamination, ocean radioactivity, ocean property, oceanographic ship /Vityaz oceanographic ship

ABSTRACT: The article deals with the results of determinations of Sr^{90} concentration in the deep waters of the central Pacific at the end of 1961 during the 34th cruise of the *Vityaz*. The vertical distribution of Sr^{90} was determined along 162 E long, and 176, 154, and 140 W long from 18 S lat to 15 N lat. The levels at which samples were taken includes practically the entire water spectrum of the ocean from the surface to the bottom. Common regularities in the vertical distribution of Sr^{90} in the Pacific Ocean were determined, and the t...

Card 1/2

L 47076-66

ACC NR: AT6028953

total amount of Sr^{90} beneath the surface of the ocean in the region investigated was estimated Orig. art. has: 4 figures and 1 table. [LB]

SUB CODE: 08,18/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 005

Card 2/2 mt

L 47093-66 EWT(1)/EWT(m) GW
ACC NR: AT6028954 SOURCE CODE: UR/2566/66/082/000/0016/0019

AUTHOR: Popov, N. I., Orlov, V. M., Dabizha, V. F.

33
B+1

ORG: none

19

TITLE: Strontium-90 concentration in the Pacific Ocean

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 82, 1966. Issledovaniya radioaktivnoy zaryaznennosti vod mirovogo okeana (Investigations of radioactive contamination of waters of the oceans), 16-19

TOPIC TAGS: strontium , radioactive contamination, ocean radioactivity ocean property

ABSTRACT: The results of determinations are presented for Sr^{90} concentration in the surface waters of the South China Sea and in regions adjacent to the Pacific Ocean in November 1962. It was determined that the concentration of Sr^{90} in the surface water of this region was at the 1960-1961 level. The probable causes of higher concentrations of Sr^{90} which were observed earlier in the waters of the western Pacific are discussed. Orig. art. has: 1 figure and 1 table. [LB]

SUB CODE: 08,18/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 004

Card 1/1 hs

ZAUER, Nina Sergeyevna; POPOV, N.I., kand. tekhn. nauk, red.;
BULKINA, N.I., red.; RASHITOV, M.M., red.

[Russian-Bulgarian technical dictionary] Russko-bolgarskii politekhnicheskii slovar'. Moskva, Izd-vo "Sovetskaia entsiklopediia," 1964. 471 p. (MIRA 17:7)

GANICHKIN, A.M., prof.; POPOV, N.K.; OSIPOV, F.M., dotsent

Karo Tomasovich Ovnatanian; on his 60th birthday. Vest. khir. 91 no.7:145-146 Jl '63 (MIRA 16:12)

GREDZHEV, A.F., kand. med. nauk (Donetsk, ul. Shchorsa, 10, kv. [illegible]); [illegible]GOV, N.K.

Congenital dilatation of the common bile duct. Vest. khir. 92 no.5:86-88 My '64. (MIRA 18:1)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. K.T. Ovnatanyan) Donetskogo meditsinskogo instituta imeni A.M. Gor'kogo.

VOLOKHOV, M.I.; PRISHCHENKO, V.P.; POPOV, N.K.

Dustiness of the air in several Kazakhstan pits. Trudy Inst.gor. dela AN Kazakh.SSR 8:180-183 '61. (MIRA 15:4)
(Kazakhstan--Mine dusts)

POPOV, N.L., inzh.

Design and construction of a large industrial enterprise for the manufacture of magnesite powder from the salt water of Lake Sivash. Trudy Inst. ogneup. no.29:3-18 '60. (MIRA 14:12)
(Magnesite)
(Sivash, Lake--Sea water)

SOSHCHENKO, Ye.M., POPOV, N.L.

Protecting pipelines from corrosion caused by stray currents.
Neft. khoz. 38 no.1:60-65 Ja '60. (MIRA 13:7)
(Bashkiria--Pipelines--Corrosion)

POPOV, N.M.

Microdiffraction of utrahigh-speed electrons. Vest. AN SSSR 34 no. 1:39-44 Ja '64. (MIRA 17:5)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.

1. POPOV, N. M.

2. USSR (600)

4. Swine--Chelyabinsk Province

7. Useful book ("Practice of leading swine breeders of Chelyabinsk Province." V. B. Veselovskiy. Reviewed by N. M. Popov), Sots. zhiv., 15, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

SOV/70-3-6-8/25

AUTHORS: Popov, N.M. and Zvyagin, B.B.

TITLE: Application of a 400 kV Electronograph to the Study of Single Crystals (Primeneniye 400-kV elektronografa dlya issledovaniya monokristallov) + 4 plates

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 6, pp 706-708 (USSR)

ABSTRACT: The principal difficulty in the electron diffraction examination of clay minerals is that so many reflections overlap. Even in texture pictures there is much overlapping while powder photogmaphs are very difficult to interpret unambiguously. Diffraction from single crystals of dimensions about 1 μ in chance orientations is one solution to the problem. However, if high-energy electrons are used, a crystal big enough to be manipulated can be examined. A new Soviet 400 kV electron microscope (described by N.M. Popov in Izv.Ak.Nauk SSSR, Ser.Fiz., 1958) has been applied for this purpose. The accelerating voltage is measured to 0.5% by an electrostatic voltmeter. The i.p. voltage is stabilised with a synchronous motor-generator. A resistance/capacity filter reduces voltage fluctuations to less than 0.005%. Four-stage focussing produces a concentrated electron beam. The relativistic

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Application of a 400 kV Electronograph to the Study of Single Crystals

speed of the electron is up to 600 kV. A universal stage permits the movement of the specimen up to 75° in all directions. 6 objects can be examined serially in the same holder without breaking the vacuum. Both transmission and reflection techniques can be used. A semi-automatic camera keeps the X-ray background on the plates to a minimum. Specimens up to 3 μ thick can be examined.

Specimens of kaolinite and dickite were used for testing the diffraction performance. A spot pattern from single crystals of kaolite and dickite are reproduced. Indexing the spots is therefore extremely easy. The minimum value of d recorded is about 0.4 KX . The technique of very high-voltage diffraction is thought to be extremely valuable for such dispersed systems.

SOV/70-3-6-8/25

Application of a 400 kV Electronograph to the Study of Single Crystals

ASSOCIATION: Vsesoyuznyy geologicheskiy institut (All-Union Geological Institute)

SUBMITTED: February 28, 1958

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S/0030/64/000/001/0039/0044

ACCESSION NR: AP4013735

AUTHOR: Popov, N. M.

TITLE: Microdiffraction of ultrahigh-speed electrons

SOURCE: AN SSSR. Vestnik, no. 1, 1964, 39-44

TOPIC TAGS: microdiffraction, electron microscope, acceleration potential, ultra-high speed electron, electronograph, diffraction spectrum

ABSTRACT: Microdiffraction has been defined as the method of obtaining particle diffraction spectra by observing their images under an electron microscope. Utilizing an electron microscope-electronograph with 400-kv acceleration potential (557 kev electron energy), a set of microdiffraction studies has been made of internal mosaics and dispersions in crystals with 0.05 μ discrimination. In particular, the spherical texture in the cross-bedded texture of carbon black has been observed. As an important application of microdiffraction, the ultrahigh-speed electron technique can be utilized in identifying micro-impurities in substances of ultrahigh purity. Orig. art. has: 5 figures.

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POPOV, N. L.
Institute of Electronic Optics of the State Committee for Radio Electronics, Moscow.

"An Electron Microscope and Diffractiongraph for 400 Kilovolt Acceleration Voltage,"

report presented at 4th. Intl. Conference on Electron Microscopy, Berlin GRR, 10 - 17 Sep 1958.

Popov, N. M.

12. СЕКЦИЯ ЭЛЕКТРОННОЙ МИКРОСКОПИИ

Руководитель академик А. А. Лебедев

12 июня
(с 10 до 16 часов)

П. А. Стоянов,
В. В. [illegible]

Электронный микроскоп УЭМВ 100

А. И. [illegible],
Ю. М. Кушнир

Универсальный электростатический анализатор энергии на 75 кв и некоторые вопросы его применения

Н. М. Попов

Электронный микроскоп-электронограф с ускоряющим напряжением 400 кв и перспективы использования электронно-[illegible] свойств для исследования структуры вещества

Н. Г. [illegible]

О возможности применения электронного микроскопа для исследования объектов в атмосфере газов в их влажном состоянии.

38

12 июня
(с 16 до 22 часов)

З. Я. Берестнева

Использование электронной микроскопии для исследования коллоидных систем и высокомолекулярных соединений

Ю. А. Скаков

Электронно-микроскопические исследования структурных несовершенств в металлах и сплавах.

13. СЕКЦИЯ РАДИОВЕЩАНИЯ, ЭЛЕКТРОАКУСТИКИ И ЗВУКОЗАПИСИ

Руководитель И. Е. Горон

9 июня
(с 10 до 16 часов)

В. А. [illegible]

Способы повышения устойчивости работы систем усиления речи

Г. С. [illegible]

Исследование распределения во времени мгновенных значений [illegible] сигналов

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Report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORIE), Moscow, 8-12 June. 1959

POPOV, N. M.

"Electron Diffraction Camera-Microscope with a 400 kV Voltage and the Prospects of its Use for the Study of Structures"

a report presented at Symposium of the International Union of Crystallography Leningrad, 21-27 May 1959

9(7) SOV/48-23-4-2/21

AUTHOR: Popov, N.M.

TITLE: Electronic Microscope-Electronograph With an Accelerating Voltage of 400 kv (Elektronnyy mikroskop-elektronograf s uskoryayushchim napryazheniyem v 400 kv)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 4, pp 436 - 441 (USSR)

ABSTRACT: The present paper begins with the mention that the investigations published in the last decade concerning electron microscopes and electronographs were almost exclusively carried out with accelerating voltages of 50 - 100 kv and only few with more than 100 kv. The author has devised an electronic microscope-electronograph for the microstructural analysis of materials. The following was of special interest in the development of this instrument: determination of electron optical parameters of high-voltage electron accelerators, voltage protection, evacuation system, parameters of magnetic lenses, etc. The velocity of electron attains 600 kev, the resolving power amounts up to 20 Å. Maximum magnification is 200000. Microdiffraction pictures and shadow pictures are made possible. The instrument works both with the penetration and with the reflection procedure. The electron accelerator and the condenser lens feature

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mechanical facilities for precision adjustment. Besides the electron accelerator the chief elements are given by the condenser-, object-, intermediate lens and projecting lens as well as the camera. They are vertically arranged on an optical bench. In the following the authors describe the insertion of the object and the various working methods with this instrument. The connecting of the current source and the safety measures are discussed next. The reduction of the aberration is dealt with in detail and the advantages of the high-acceleration voltage are pointed out. Mention is made of the investigations carried out jointly with Zvyagin (Refs 13 and 14) concerning the production of monocrystalline diffraction images as well as the investigations carried out jointly with Yu. A. Skakov in the bright and dark field procedure. Some photographs obtained with this microscope are shown and discussed. In conclusion, the developing possibilities of this instrument and the further extension of its applicability are outlined.
There are 8 figures and 14 references, 3 of which are Soviet.

AUTHOR: Popov, N. M.

TITLE: High Voltage Electron Gun (Vysokovol'tnaya elektronnaya pushka)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 4, pp 494-500 (USSR)

ABSTRACT: A survey on the construction and calculation of an electron gun with an accelerating voltage of 100 kv is given in the present paper, and electron guns with V-shaped cathodes and accelerating voltage up to 400 kv are discussed. Figure 1 shows an electron gun with an accelerating voltage of 400 kv. It consists of four cascades, each of which is made of a [illegible] shaped part of aluminum plate, in which the electrodes are housed internally. The cascades are separated by insulators. For the determination of the gun parameters a cathode beam was built, whose electrodes are shown in figure 2. The basic scheme of the experimental arrangement is shown in figure [illegible] and is discussed in detail. Next, the theoretical brightness (current density/cm^2) of the beam in the gun is given according to Langmuir in formula (1); further, the theoretical current density in the beam in A/cm^2 with formula (2), and

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finally, the theoretical maximum current density in any part of the microscope with formula (3). From the electrode data in figure 2 the diameter of the electron source shadow picture is computed with formula (4). Formula (5) gives the dependence of the current density on the stop aperture, (6) allows the diameter of the emitting cathode zone to be determined, and (6a) allows the computation of the electron beam diameter in any part of the optical system. An example is given with (7), namely, the diameter of the emitting cathode zone is computed with formula (6) for the electron gun described at the beginning. The distance of a depicted net from the electron source is put in proportion to the distance of the net from the photographic plate in formula (8). The pupillary diameter is shown in (9) and the aperture angle in (10). Figure 4 shows the electric field in the proximity of the cathode for three different accelerating voltages. The path of rays in the condensor is depicted in figure 5, and figure 6 shows the path of rays in the electron source picture. The diagram in figure 7 shows the dependence of the current intensity of the electron beam on emission. All the aforementioned formulas and figures are discussed in detail.

There are 7 figures and 5 references, 2 of which are Soviet.

SOV/48-23-6-1/28

AUTHORS: Popov, N. M., Zvyagin, B. B.

TITLE: Investigation of Minerals by Means of the Method of Microdiffraction in an Electronic Microscope-Electronograph With an Accelerating Voltage of 400 kV (Izucheniye mineralov metodom mikrodifraktsii v elektronom mikroskope-elektronografe s uskoryayushchim napryazheniyem 400 kV)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 6, pp 670 - 672 (USSR)

ABSTRACT: The method of microdiffraction is a considerable advantage both for electron-microscopy and for electronography, and in the introduction the possibility of imaging any micropart of a preparation and the quantitative structural analysis are discussed. The analogy between the here discussed method and the use of polarized light in optical microscopes is briefly discussed, after which the usual structural analysis, by means of which the relative intensity of reflections is determined, and the dark-ground image is discussed. Finally, the microscope-electronograph constructed by N. M. Popov is discussed, which has an accelerating voltage of 400kV; the diameter of the electron beam is 0.05μ. This exceedingly small diameter makes it possible to investigate minerals composed of very small particles and to

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Investigation of Minerals by Means of the Method of Microdiffraction in an Electronic Microscope-Electronograph With an Accelerating Voltage of 400 kV

watch the structural transitions on the particle boundaries. In the last part of the paper the 12 figures shown are discussed. Of these, 8 are X-ray pictures, and the remaining four are dark-ground images. Investigations are carried out of kaolin, gallusite, montmorillonite, serpentine minerals, antigorite, chrysotile, and sepiolite. There are 12 figures and 3 references, 1 of which is Soviet.

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L 07460-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JH
ACC NR: AP6034571 SOURCE CODE: UR/0020/66/170/006/1310/1311

AUTHOR: Budnikov, P. P. (Corresponding member AN SSSR); Sandulov, D. B.; Popov, N. M.

37
35
B

ORG: Moscow Institute of Chemical Technology im. D. I. Mendeleyev (Moskovskiy khimiko-tekhnologicheskiy institut)

TITLE: Investigation of magnesium oxide whiskers

SOURCE: AN SSSR. Doklady, v. 170, no. 6, 1966, 1310-1311

TOPIC TAGS: magnesium oxide, ~~magnesium oxide~~ whisker, single crystal metal ~~whisker~~ growth crystal

ABSTRACT: Single-crystal magnesium-oxide whiskers were grown from polycrystalline magnesium oxide at 1400—1500C in a kryptol furnace lined with magnesite tubes. The transport of magnesium oxide was done by the reaction: $MgO + CO \rightleftarrows Mg + CO_2$ or $2MgO + C \rightleftarrows 2Mg + CO_2$. The CO or C were supplied by the diffusion of carbon through the furnace lining. The structure, length, and shape of crystals depended upon the temperature: at 1500—1600 acicular crystals up to 30 mm long and 300 μ thick were formed. Whiskers up to 15 mm long and up to 30 μ in diameter grew at 1400—1500C, when the crystal growth is the most rapid; the growth rate is 2—3 μ/sec. The holding time extended over 2—3 hr transforms whiskers into angular crystals. Whiskers whose thickness is less than 3—4 μ have a very smooth surface. On heavier whiskers, the growth planes can be

UDC: 548.55

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